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DOGM
MINERALS PROGRAM
FILE COPY

July 14, 1989

TO: Lowell Braxton, Associate Director, Mining

FROM: Holland Shepherd, Reclamation Specialist HWS

RE: Recommendations and Concerns Regarding the Kennecott Mining and Reclamation Plan and Reclamation Contract, M/035/002, Salt Lake County, Utah

As a result of our recent inspection of the Kennecott site and evaluation of their permit, some important concerns have developed. Extensive areas of land (ranging into the thousands of acres) have been impacted by the Bingham Pit operation, while extremely little action has been taken by the Division or operator to reclaim it. An earlier contract, formulated in 1978 binds the Division and operator to the development of an annual reclamation plan for this site. This agreement, to my knowledge, has never been implemented. As a result, very little contemporaneous reclamation has occurred at the site.

Reclamation at this site presents a major problem, because of the acidity of the waste materials, coarseness of waste material and the steep final grade of slopes (waste dumps and pit) allowed in the 1978 approval of the operator's permit. According to the 1976 MRP, virtually 8,000 acres of waste materials remain unvegetated because of the above characteristics. The total disturbance now, including the pit, is much greater.

Based on our observations at the site, on July 11, 1989, I have formulated the following recommendations and concerns:

1. The Division and operator must set up a meeting(s) to develop a satisfactory reclamation plan for the upcoming season(s). The reclamation plan would include extensive contemporaneous reclamation and the development of a well monitored test plot plan.
2. The Division should ask the operator to submit information concerning areas that have been moth-balled at the site. These areas are eligible for contemporaneous reclamation.

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3. The Division should ask the operator to develop an extensive program to characterize the soil properties of waste dump and pit materials. This would require sampling many areas across the site.
4. The operator plans to initiate the development of greater than 50° skin cuts in the pit. The Division needs to look at the feasibility of such cuts in regard to pit reclamation. Anything over 45° requires a variance, for stability. Anything over 27° requires a variance for revegetation.
5. The Division should consider renegotiating the existing Reclamation Contract/Board Contract with Kennecott. The reclamation of this site will run into the millions of dollars. Once Kennecott is through mining where will the capital come from to reclaim the site? Since Kennecott intends to mine this area for the next 20 - 30 years, it would seem feasible for them to develop an escrow account that would cover most of the reclamation cost at the time of final closure. They would have to spend this money anyway, and it would give the State a more secure position in ensuring that satisfactory, final reclamation occurred. Also, I anticipate that as the Federal and State environmental laws evolve, the amount of clean-up Kennecott will be expected to perform in the Bingham area will grow by magnitudes.

jb
cc: Minerals Team
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